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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/775,188

Applicant(s)

OHTA ET AL.

Examiner

JACKY X. ZHENG

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on May 6, 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on February 11, 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date 1/30/08
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This office action is in response to applicant's amendments and remarks filed on May 6, 2008.
2. **Claims 7-12** are newly added for consideration.
3. **Claims 1-12** are currently pending.
4. The objection to "TITILE" is withdrawn in view of Applicant's amendment with a new title.

Information Disclosure Statement

5. The information disclosure statement (IDS) submitted on January 30, 2008 was filed after the mailing date of the application on February 11, 2004. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. **Claims 7, 8 and 12** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

8. The newly presented Claim 7 recites the limitation of "a pre-determined start time to begin printing preparation of the recording sheet so...", Applicant has not indicated any support(s) from the original disclosure, Examiner has not found any *explicit* disclosure supporting the limitations of "a pre-determined start time to begin printing preparation of the recording sheet so...". Therefore, claim 7 is rejected for the abovementioned reasons, at least until the further clarification indicating that such limitations are indeed being *explicitly* disclosed in the original disclosure at the time of the application filed.

9. The newly presented Claim 8 recites the limitation of "a first end time" "a second end time" and "a third end time" of "the synchronization", Applicant has not indicated any support(s) from the original disclosure, Examiner has not found any *explicit* disclosure supporting the limitations of "a first end time" "a second end time" and "a third end time" of "the synchronization". Therefore, claim 8 is rejected for the abovementioned reasons, at least until the further clarification and/or claim languages indicating that such limitations are indeed being *explicitly* disclosed in the original disclosure at the time of the application filed.

10. The newly presented Claim 12 recites the limitation of "... the printing preparation of the recording sheet for the image data is performed in the order in which the first completion time or the second completion time is earlier", Applicant has not indicated any support(s) from the original disclosure, Examiner has not found any *explicit* disclosure supporting the limitations of "... the printing preparation of the recording sheet for the image data is performed in the order in which the first completion time or the second completion time is earlier ". Therefore, claim 12 is rejected for the abovementioned reasons, at least until the further clarification and/or claim

languages indicating that such limitations are indeed being *explicitly* disclosed in the original disclosure at the time of the application filed.

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. **Claims 8 and 9** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

13. The term "*simultaneous*" in claim 8 is a relative term which renders the claim indefinite. The term "*simultaneous*" is not explicitly defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear whether the claimed limitation of "*simultaneous*" is referring to: a) exactly at the same time; b) approximately the same time whereas first finish time is before second finish time; c) approximately the same time whereas first finish time is after second finish time; d) approximately the same time between first and second finish times within an error of certain range; and etc. Further clarification is required.

14. The term "*suitable*" in claim 9 is a *relative* term which renders the claim indefinite. The term "*suitable*" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Further clarification is required.

15. The newly-added claim 8, recites limitation of "...the synchronization comprises:" "a first end time ...", "a second end time ...", **and** "a third end time...". It is unclear how

synchronization could "comprises" three different "end times" assuming merely one print job is being preformed. The prior art rejection will presumably be basing on either one of three "end times" until further clarification is provided.

16. The newly-added claim 9, recites limitation of "various kind of films", is it unclear which particular type(s) of films are being referred to, so the scope of such limitation cannot be properly determined and further render the scope indefinite. Further clarification is required.

Response to Arguments

17. Applicant's arguments filed May 6, 2008 have been fully considered but they are not persuasive.

18. In re Applicant's remarks filed on May 6, 2008, on Pg. 8-9, with regard to the rejection made under 35 U.S.C. §112, second paragraph with regard to Claims 1 and its corresponding dependent claims, Applicant asserts that the limitation of "*printing preparation start timing*" and "*...the terminology used in the independent claim is sufficiently clear and the claim meets all requirements of 35 USC 112, second paragraph...*". Applicant's argument(s) are fully considered, however found to be not persuasive for at least the following reasons. The specific limitation of "*printing preparation start timing*" in argument is submitted to be unclear in consideration of both the context of the claim and as such a limitation as not been explicitly depicted with sufficient descriptions in the instant claim for defining and/or differentiating from others, which will not allow one of ordinary skill in the art to clearly identify which of such a specific timing that is being referred to, as there is no further descriptions in indicating the differences with other types of timing also recited in the claim, therefore, such a limitation or

claim language without further specification is unclear or confusing at best. In details, prior to recitation of claim limitation of “printing preparation start timing”, other types of timings, such as: “transfer time”, “printing preparation time required for printing preparation of the recording sheet” are mentioned; and as one of ordinary skill in the art will readily realize, both the processes of transferring of image data, and the process of preparation of recording sheet, to be generally known as parts of (or sub-steps) of “printing preparation”; therefore, brief recitation of claim limitation of “printing preparation start timing” without any further descriptions in the claim, nor any explicit disclosure that constitutes as a definition in the specification, Examiner once again submits that it will be *unclear* and/or *confusing* as the claim limitation of “printing preparation start timing” could either be referring to: a time of starting a transfer of image data (or “transfer time), a time of starting a preparation of the recording sheet, or a time of starting both a transfer of image data and starting a preparation of the recording sheet, for at least the reason that each of abovementioned processes would be reasonably recognized by one of ordinary skill in the art to be a part of printing preparation. Therefore, for at least the reasons set forth above, the rejection made under 35 U.S.C. §112, second paragraph with regard to claim 1 and its corresponding dependent claims 2-12 is remained proper and therefore maintained.

19. In re Applicant’s remarks from Pg. 9, 3rd Para. to Pg. 10, 2nd Para., regarding the rejection made under 35 U.S.C. §103(a) with regard to Claim 1, Applicant asserts that *“Takenaka does not disclose that the recording start timing is based on the “transfer time” of the image data from the outputting apparatuses to the printer”*. Applicant’s argument(s) are fully considered, however found to be not persuasive for at least the following reasons. As discussed and set forth

in previous office action dated February 6, 2008, in Takenaka, i.e. Para. [0016], discloses “*an output control means for activating the output mechanism of the printer based on the recording starting timing determined by the determination means*”; Examiner submits, further within the same paragraph, discloses “*a determination means for determining a recording starting timing at which the bit image is sent to an output mechanism of a printer based on the transfer time estimated by the estimation means...*”; therefore, Examiner submits in details that the disclosure clearly indicates “*the output control means*” for activating the output mechanism of the printer based on the recording starting timing determined by the determination means, of which is based on the transfer time estimated by the estimation means as illustrated above. Furthermore, “the output control means” for activating the output mechanism of the printer is *at least indirectly* based on the transfer time estimated (as “the recording start timing” is determined based on “the transfer time”). Further, as the scope of instant claim in argument has not specified with any further limitation of whether a direct or indirect correlation or dependency between “control means” and “the transfer time”, the abovementioned teachings are deemed to be read on the broad scope claimed, as the claim should be subject to broadest reasonable interpretation. Therefore, for at least the reasons set forth above, the rejection made under 35 U.S.C. §103(a) over with regard to claim 1 is remained proper and therefore maintained.

20. In re Applicant’s remarks from Pg. 10, 3rd – 4th Para., regarding the rejection made under 35 U.S.C. §103(a) with regard to Claim 1, Applicant asserts that “Takenaka does not take into account image data from multiple sources of image”. Applicant’s argument(s) are fully considered, however found to be not persuasive for at least the following reasons.

- a. First, the aspect of transmitting the image data from multiple sources of image (such as: from a plurality of clients) to a designating outputting device (such as: a networked printer), Examiner submits that such a concept of network printing would be readily obvious and conventional for one of ordinary skill in the art at the time of invention. In addition, as also admitted by Applicant in instant Specification, i.e. Pg. 1, 2nd - 4th Para. to be “conventional” and “known”, specifically “*Conventionally, ... a print system which prints images by transferring image data from each of a plurality of image data outputting apparatus which has been connected to one printer is known*”.
- b. Second, Applicant’s attention is directed to, Takenaka, i.e. Fig. 15 (as was also discussed and set forth in previous office action), illustrates a system of multiple clients or sources “1a”, “1b” and “1c”, being connected through the network “6”, to the designating output devices or “PDL compliant printer”, “2” and/or “4”. In addition, i.e. Para. [0003] clearly discloses, “*the client 1a, 1b, 1c send raster data, which are print information or bit image information written in a PDL, to the page description language compliant printer 2 on the network 6*”.

Therefore, for at least the reasons set forth above, the rejection made under 35 U.S.C. §103(a) with regard to claim 1 is remained proper and therefore maintained.

21. In re Applicant’s remarks from Pg. 10, 5th Para. to Page 11, 2nd Para., regarding the rejection made under 35 U.S.C. §103(a) with regard to Claim 1, Applicant asserts that “Takenaka, ... does not disclose that the bit image sent to an output mechanism corresponds to the “printing preparation time required for...preparation of the recording sheet for printing”.

Applicant's argument(s) are fully considered, however found to be not persuasive for at least the following reasons.

a. Without acquiescence to Applicant's argument, Examiner submits that the claimed limitation of *"a printing preparation time required for printing preparation of the recording sheet for printing the images based on the image data"(currently claimed)*, is not equivalent to *"a printing preparation time of the printing preparation of the recording sheet for..." (which is not currently claimed)*. Apparently, the latter "printing preparation time of the printing preparation of the recording sheet" is clearly referring to a time directly consumed by the preparation process of the recording sheet (hereinafter refer as **"a time in directly preparing of recording sheets"**, such as: feeding or conveying depends on types of output devices); whereas instantly claimed limitation of *"a printing preparation time required for printing preparation of the recording sheet for..."*, the "printing preparation time" in this case is neither necessarily nor inherently to be referring to a direct or exact time consumed in the preparation process of the recording sheet (or "a time in directly preparing of recording sheets"). For instance, in a case which determination of "a time in directly preparing of recording sheet", is calculated by taking into considerations of: "data processing time of the command (or request) of preparation of recording sheet (processing time)", "signal transmitting time to controller in order to activate the preparation of recording sheets (transmission time)", and "actual time in directly preparing of recording sheets (i.e. actually feeding or conveying)", and either one of three types of times could be referred as *"a printing preparation time required for printing preparation of the recording sheet for printing the images based on the image"*

data” as it is obvious for one of ordinary skill in the art to recognize that each one of these times are “required for” the printing preparation of the recording sheet in the operation. Therefore, as set forth in the previous office action, in Para. [0015], “*a determination means for determining a recording start timing at which the bit image is sent to an output mechanism of a printer based on the processing time estimated by the estimation means”*”, “the processing time estimated” is reasonably to be read on the broad scope of the claimed limitation of “*a printing preparation time required for printing preparation of the recording sheet for printing the images based on the image data*” for at least the reason that “the processing time estimated” is obviously disclosed to be required in determination of time relating to the output mechanism as discussed for one of ordinary skill in the art at the time of invention.

b. Again, without acquiescence to Applicant’s assertion and in addition to the interpretation taken that the claimed limitation of “*a printing preparation time required for printing preparation of the recording sheet for printing the images based on the image data*” is not merely referring to “a time in directly preparing of recording sheets” (such as: time in feeding or conveying the sheets), and merely for purpose of arguments and illustration of Takenaka as well discloses the limitation of “a time in directly preparing of recording sheets” (note: the current version of claimed limitation is required to specifically amended to have the specific feature in order to avoid the broadest reasonable interpretations), Examiner submits, i.e. Para. [0008], more specifically on Pg. 7, ln 1, discloses “*estimates the deployment processing time for a single page*”.

Therefore, for at least the reasons set forth above, the rejection made under 35 U.S.C. §103(a) with regard to claim 1 is remained proper and therefore maintained.

22. In re Applicant's remarks from Pg. 11, 3rd Para. to Pg. 12, 1st Para., regarding the rejection made under 35 U.S.C. §103(a) with regard to Claim 1, Applicant asserts that *"Takenaka does not disclose or suggest that the "time of completion of transfer of the image data and the time of completion of the printing preparation of the recording sheet to be synchronized"*. Applicant's argument(s) are fully considered, however found to be not persuasive for at least the following reasons.

a. First, in original disclosure provided by Applicant, i.e. Pg. 6, ln 25 to Pg. 7, ln 10, indicates, *"...the above-described "enable the time or completion of transfer of the image data and the time of completion of the printing preparation of the recording sheet to be synchronized" is not limited to the case where the time of completion of the transfer of the image data and the time of completing the printing preparation of the recording sheet are completely matched. This includes the case where the time of completion of the transfer of the image data and the time of completion of the printing preparation are in a state of a given time relationship, for example, the time relationship of the former to be latter is a predetermined time before or a predetermined time after"*, therefore, Examiner respectfully submits that, the scope of claimed limitation of "to be synchronized", should not be limited to the times being "completely matched", but also inclusive of the cases of one process completes before or after another process (as originally disclosed by Applicant in Specification indicated above).

b. Second, as the discussions of “transfer time” and “printing preparation of recording sheet time” have already been discussed above; and the claimed limitation of “to be synchronized” as discussed in “a.” above, being either “completely match”, “before” or “after”, Examiner respectfully submits that discussion of disclosure in Takenaka reads on the scope of such claimed limitation. In addition, one of ordinary skill in the art at the time of invention would have been able to recognize the implementation of the two above discussed processes to be completed at either: “completely matched” time (or exactly the same time), or one before another, or one after another.

Therefore, for at least the reasons set forth above, the rejection made under 35 U.S.C. §103(a) with regard to claim 1 is remained proper and therefore maintained.

23. In re Applicant’s remarks from Pg. 12, 2nd Para. to 5th Para., regarding the rejection made under 35 U.S.C. §103(a) with regard to Claim 1, Applicant asserts that (a) “...the ‘recording start timing’ of Takenaka does not correspond to the ‘printing preparation start timing’ relative to the recording sheet as recited in the claimed invention”, and (b) rejections with regard to the dependent claims 2-6 should be withdrawn “at least by virtue of their dependencies”.

Applicant’s argument(s) are fully considered, however found to be not persuasive for at least the following reasons.

a. With regard to argument (a), Examiner respectfully submits that the claimed limitation of “printing preparation start timing” is “obtained that enables the time of completion of transfer time of the image data ...”, and as set forth previously, in Takenaka, i.e. Para. [0016] discloses “a control means for activating the output

mechanism of the printer based on the recording start timing..."; in addition, i.e. in Para. [0012], also disclose such an obvious limitation of "paper feed timing".

b. With regard to argument (b), Applicant asserts that the rejections with regard to the dependent claims 2-6 should be withdrawn as they depend from the independent claim 1. However, since the rejection of claim 1 is maintained for at least the reasons stated above and the ones set forth previously, the grounds of rejection for the corresponding dependent claims are also maintained since Applicant has not pointed to any further deficiencies of the rejection, or amending any claims for overcoming the rejections of record.

Therefore, for at least the reasons set forth above, the rejection made under 35 U.S.C. §103(a) with regard to claim 1 is remained proper and therefore maintained.

24. In re Applicant's remarks from Pg. 12, 5th Para. to Pg. 4, 1st Para., regarding the rejection made under 35 U.S.C. §103(a) with regard to Claim 3, Applicant asserts that *"Takenaka does not disclose or suggest, 'transfer time information' indicating the transfer time of the image data of the image data outputting apparatus is input and stored in the control means in advances"*.

Applicant's argument(s) are fully considered, however found to be not persuasive for at least the following reasons.

a. First, as set forth previously, Takenaka, i.e. Para. [0005], discloses "print information PI sent from a client is inputted ... converting the print information PI to bit image information BI of a type required by the recording unit ... the bit image information BI is also stored in a hard disk unit"; also see Figure 17 and Paragraphs

[0050] -[0052]. Examiner respectfully submits that as the claimed limitation of “transfer time information” has not been *explicitly* defined in the claim to exclude in scope the interpretations of “print information (or PI)” disclosed by Takenaka, and as disclosed by Applicant that “transfer time information” is being acquiring directly based on the image data (print information or image information), such as their size and transfer speed. Therefore, without proper limitation of the claim scope, interpreting the information of the “print data or bit image data” as “transfer time information” will be reasonable based on the broadest reasonable interpretation.

a. Second, for purpose of advancing the prosecution, a discussion of disclosure by Takenaka in claimed limitation of “transfer time information”, whereas such information is in a separate form from the image data will be illustrated as below. See Takenaka, i.e. Claim 1, discloses “attribute information”, being “attached to the data file”. Also, see Takenaka, i.e. Para. [0018], discloses “...*attribute information describing the type, number, size, and the like of an object attached to a data file described in a page description language...*”.

Therefore, for at least the reasons set forth above, the rejection made under 35 U.S.C. §103(a) with regard to claim 3 is remained proper and therefore maintained.

25. In re Applicant’s remarks from Pg. 13, 3rd Para. to Pg. 14, 1st Para. regarding the rejection made under 35 U.S.C. §103(a) with regard to Claim 4, Applicant asserts that “Takenaka, *does not disclose or suggest, ‘the control means obtains a difference time between the transfer time*

and the printing preparation time". Applicant's argument(s) are fully considered, however found to be not persuasive for at least the following reasons.

- a. First, as set forth previously, the claim is drawn to the print system according to claim 1, wherein: the control means obtains a difference time between the transfer time and the printing preparation time (see Takenaka, i.e. Para. [0055] discloses "*the determination means 25 determines the activation timing based on a remaining time obtained from the newly calculated transfer time ... the steps Sc4 to Sc6 are repeated until the remaining time falls within the start-up time of the printing section (obviously by comparing a difference, if no difference existed in comparing, then the time falls within the section)...*" and when the transfer time is longer than the printing preparation time (see Takenaka, i.e. Para. [0055] discloses "*if the raster data size is large and the remaining time required for receiving all of the raster data from the present time is longer than the start-up time, which is the time period from the time ...*"), the printing preparation of the recording sheet is started after a period of time equivalent to the difference time has passed from a transfer start time of the image data (see Takenaka, i.e. Para. [0055]-[0056], discloses "*... when the remaining time falls within the start-Up time of the printing section, the determination section 25 instruct the activation timing to the output control means..*");
- b. In addition, see Takenaka, i.e. claim 3, discloses "*a comparison means for comparing the differences between the actual processing time measured by the measuring means and the processing time estimated by the estimation means ...*".

Clearly, Takenaka discloses the teachings of determining the differences in time among the processing times.

Therefore, for at least the reasons set forth above, the rejection made under 35 U.S.C. §103(a) with regard to claim 4 is remained proper and therefore maintained.

23. Applicant asserted that for the same reason claim 4 is patentable, further alleged claims 5 and 6 should also be patentable for reason of similar limitation being recited. However, since the rejections of claim 1-4 are maintained for reasons stated above, the grounds of rejection for claims 5-6 are also maintained since Applicant has not pointed to any further deficiencies of the rejection, or amending any claims for overcoming the rejections of record.

(The grounds of rejection and/or objection are maintained for at least the responses set forth above, reasons of record set forth previously, and also replicated and provided in below.)

Claim Rejections - 35 USC § 112

24. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

25. Claims 1-6 and (newly added claims 7-12) are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

26. Claim 1 recites the limitation of “*printing preparation start timing*”. Such a limitation has not been *explicitly* depicted with sufficient descriptions in the instant claim, which will allow one of ordinary skill in the art to clearly indicate or define the differences among the other

"times" (such as: transfer time, a printing preparation time for printing preparation of recording sheet, the time of completion of the printing preparation of the recording sheet, and etc.) claimed in the instant claim. The scope of such a limitation is unable to be clearly determined considering the mere recitation of *intended usage* of "*printing preparation start timing ... enables the time of completion of transfer of the image data and time of completion of the printing preparation of the recording sheet to be synchronized*" without rather depicting how "*printing preparation start timing*" is being calculated, determined and/or defined in the claim. For purpose of advancing the prosecution, such a limitation of "printing preparation starting timing" is presumed and interpreted by Examiner for purpose of consideration over the prior art(s), to be a pre-calculated or pre-determined point of time to start printing preparation of the recording sheet, and such a point of time further allowing the completion of both transferring of the image data, and printing preparation of recording sheet to be synchronized (or at approximated same time). Further clarification is respectfully requested for purposes of properly determining the metes and bounds of such a limitation in future prosecution. This issue also affects the corresponding dependent claims 2-6 (and newly added claims 7-12).

Claim Rejections - 35 USC § 103

27. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

28. **Claims 1-6** are rejected under 35 U.S.C. 103(a) as being unpatentable over **JP 10058798** (Published on March 3, 1998, hereinafter refer as "**Takenaka**", and following discussion will be referring to English translation of abovementioned Japanese publication, provided in record).

With regard to claim 1, the claim is drawn to a print system comprising: at least two image data outputting apparatuses and one printer that prints images based on image data transferred from the at least two image data outputting apparatuses (*see Page 1, lines 1-19 in Specification of instant application, admitted the systems with such setting are "conventional" and "known"; also see Figure 15 in Takenaka*); and control means that controls printing preparation of the recording sheet in the printer based on the transfer time (*see Takenaka, i.e. Paragraph [0016], discloses "control means for activating the output mechanism of the printer based on the recording start timing determined by the determination means"*), required for the transfer of the image data when the image data is transferred from each image data outputting apparatus (*see Takenaka, i.e. Paragraph [0016], discloses "determining a recording start timing ... based on the transfer time estimated by the estimation means..."*, so activating of the output mechanism is indirectly based on "the transfer time" estimated as "the recording start timing" is determined and based on "the transfer time"), and a printing preparation time required for printing preparation of the recording sheet for printing the images based on the image data (*see Takenaka, i.e. Paragraph [0015] discloses "a determination means for determining a recording start timing at which the bit image is sent to an output mechanism of a printer based on the processing time estimated by the estimation means"*) printing preparation start timing is obtained that enables the time of completion of transfer of the image data and the time of completion of the printing preparation of the recording sheet to be synchronized (*see Takenaka, i.e. Paragraph*

[0016] discloses “a recording start timing at which the bit image is sent to an output mechanism of a printer based on the transfer time estimated by the estimation means; and Paragraph [0015] discloses “a determination means for determining a recording start timing at which the bit image is sent to an output mechanism of a printer based on the processing time estimated by the estimation means”; and the printing preparation of the recording sheet is started at the above-described printing preparation start timing (see Takenaka, i.e. Paragraph [0016] discloses “a control means for activating the output mechanism of the printer based on the recording start timing...”).

With regard to claim 2, the claim is drawn to the print system according to claim 1, wherein the control means calculates and obtains the transfer time based on information sent from the image data outputting apparatus when the image data is transferred from each image data outputting apparatus (see Takenaka, i.e. Paragraph [0024] - [0045], disclose time estimation based on various different attribute information).

With regard to claim 3, the claim is drawn to the print system according to claim 1, wherein: transfer time information indicating the transfer time of the image data of the image data outputting apparatus is input and stored in the control means in advance (see Takenaka, i.e. Paragraph [0005], discloses “print information PI sent from a client is inputted ... converting the print information PI to bit image information BI of a type required by the recording unit ...the bit image information BI is also stored in a hard disk unit”; also see Figure 17 and Paragraphs [0050] -[0052]).

With regard to claim 4, the claim is drawn to the print system according to claim 1, wherein: the control means obtains a difference time between the transfer time and the printing

preparation time (see Takenaka, i.e. Paragraph [0055] discloses “the determination means 25 determines the activation timing based on a remaining time obtained from the newly calculated transfer time ... the steps Sc4 to Sc6 are repeated until the remaining time falls within the start-up time of the printing section (obviously by comparing a difference, if no difference existed in comparing, then the time falls within the section)...” and when the transfer time is longer than the printing preparation time (see Takenaka, i.e. Paragraph [0055] discloses “if the raster data size is large and the remaining time required for receiving all of the raster data from the present time is longer than the start-up time, which is the time period from the time ...”), the printing preparation of the recording sheet is started after a period of time equivalent to the difference time has passed from a transfer start time of the image data (see Takenaka, i.e. Paragraph [0055]-[0056], discloses “... when the remaining time falls within the start-Up time of the printing section, the determination section 25 instruct the activation timing to the output control means..”);

With regard to claim 5, the claim is drawn to the print system according to claim 2, wherein: the control means obtains a difference time between the transfer time and the printing preparation time; and when the transfer time is longer than the printing preparation time, the printing preparation of the recording sheet is started after a period of time equivalent to the difference time has passed from a transfer start time of the image data (*The claim is rejected under the same ground for at least the reasons set forth above. See the detailed discussion of the claim 4 above*).

With regard to claim 6, the claim is drawn to the print system according to claim 3, wherein: the control means obtains a difference time between the transfer time and the printing

preparation time; and when the transfer time is longer than the printing preparation time, the printing preparation of the recording sheet is started after a period of time equivalent to the difference time has passed from a transfer start time of the image data (*The claim is rejected under the same ground for at least the reasons set forth above. See the detailed discussion of the claim 4 above*).

(Following claims 7-12 are newly-added for consideration)

With regard to claim 7, the claim is drawn to the print system according to claim 1, wherein the priming preparation start timing comprises: a pre-determined start time to begin printing preparation of the recording sheet so that a finish time of completion of the printing preparation of the recording sheet is synchronized with a finish time of completion of the transfer of the image data (*see Para. 22 above of instant office , for discussion of claimed limitation of "synchronized"; see Takenaka, i.e. claim 2, discloses "a start-up time of the output mechanism of the printer"*).

With regard to claim 8, the claim is drawn to the print system according to claim 1, wherein the synchronization comprises: a first end time wherein a finish time of completion of the printing preparation of the recording sheet and a finish time of completion of the transfer of the image data are simultaneous; a second end time wherein a finish time of completion of the printing preparation of the recording sheet is before a finish time of completion of the transfer of the image data; and a third end time wherein a finish time of completion of the printing preparation of the recording sheet is after a finish time of completion of the transfer of the image

data (see Para. 14 of instant office action, interpreting "the synchronization" being either one of three situations;; Takenaka, i.e. Para. [0018], discloses "...output mechanism of the printer is activated based on the recording start time ... this allows the processing time for processing an inputted data file ... to be estimated with a high degree of accuracy, ... an advantageous effect of reducing waste including incorrect outputting and the like ...")

With regard to claim 9, the claim is drawn to the print system according to claim 1, wherein the printing preparation of the recording sheet comprises: various kinds of films are made into a state where they can be printed; various kinds of recording papers are made into a state where they can be printed; and a suitable size and/or kind of recording sheet for printing is taken out from a tray and conveyed to the printer.

Takenaka does not *explicitly* disclose the claimed limitation of the recording sheets being "various kinds of films".

However, Examiner submits that "various kinds of films" are common and conventional for one of ordinary skill in the art at the time of invention to be utilized as recording medium or substrate. Further, it would be obvious to incorporate the "films" as "the recording sheet" for one of ordinary skill in the art at the time of invention, as the films and regular printing or recording paper or other different types of recording medium exhibit different functionalities and are to be utilized by user for very different purposes in different ways.

Additionally, "recording sheet such as film and a record paper" is admitted by Applicant on Pg. 1 of Specification, to be conventional in discussion of two conventional methods in 3rd to 4th paragraph of same page.

With regard to claim 10, the claim is drawn to the print system according to claim 1, wherein the transfer time comprises: a product of a number of image data sent from the at least two image outputting apparatuses and a transfer speed, wherein the transfer speed comprises: a speed sent from the at least two image data apparatuses; a speed sent from the control means wherein the speed is input and stored beforehand in the control means; and a default speed that is stored beforehand in the control means (see Takenaka, i.e. Fig. 17, discloses a plurality of clients and printers; Fig. 10 and Para. [0053]-[0054], disclose “a process when raster data are supplied from a client...the operation timing of the output mechanism is estimated based on the data on the transfer speed: “... the estimation means calculates the transfer time for receiving all the raster data according to the formula described above based on the measured time and the raster data size...”, and also the “attribute information”; also Para. [0053], discloses “...the operation timing of the output mechanism is estimated based on the data transfer speed”).

With regard to claim 11, the claim is drawn to the print system according to claim 1, further comprising: a storage unit which stores the image data received from the control means (see Takenaka, i.e. Fig. 17, “Hard Disk Unit 13”); a transfer start time T4 stored in the control means, wherein transfer of the image data from a first of the at least two image data outputting apparatuses is started (see Takenaka, i.e. Para. [0015], discloses “a determination means for determining a recording start timing at which the bit image is sent to an output mechanism of a printer...”). a difference time which is the difference of the transfer time and printing preparation time (see Takenaka, i.e. claim 3, “comparison means for comparing the difference ...”). a time T8 which is the time after a period equivalent to the difference time and transfer

start time T4 (see Takenaka, i.e. claim 3, "a comparison means for comparing the difference...with a predetermined threshold value"); a time T5 which is the start time of a transfer of the image data from a second of the at least two image data outputting apparatuses; a time T7 which is a completion time of the transfer of the image data from the first of the at least two image data outputting apparatuses; a time T9 which is a completion time of the transfer of the image data from the second of the at least two image data outputting apparatuses; and the printing preparation of the recording sheet for the image data is performed in the order in which the time T7 or the time T9 is earlier (see Takenaka, i.e. Fig. 15 and Para. [0003], discloses "a page description language compliant printer 2, and the other devices 3, 4 and 5", and clients 1a, 1b, 1c, sent raster data, which are print information or bit image information written in a PDL ..."; With respect to the claimed limitation of "the printing preparation of the recording sheet for the image data is performed in the order in which the first completion time or the second completion time is earlier", Applicant admitted on Pg. 1-2 of Specification, two conventional methods, one being "... a method in which when the image data is transferred from each image data outputting apparatus, printing preparation of a recording sheet such as a film and a recording paper for printing the image data is started upon completion of the transfer of the image data", in another words, printing preparation of a recording sheet is started after completion of the transfer of the image data; also see Para. 3 of instant Specification, "... that the start of the printing is delayed by the recording sheet being prepared", in another words, the completion time of transfer of image data is earlier than completion of printing preparation of the recording sheet time).

With regard to claim 12, the claim is drawn to the print system according to claim 1, further comprising: transfer of a first image data from a first of the at least two image data outputting apparatuses to the printer comprising a first completion time; transfer of a second image data from a second of the at least two image data outputting apparatuses to the printer comprising a second completion time; and the printing preparation of the recording sheet for the image data is performed in the order in which the first completion time or the second completion time is earlier (see Takenaka, i.e. Fig. 15 and Para. [0003], discloses "a page description language compliant printer 2, and the other devices 3, 4 and 5", and clients 1a, 1b, 1c, sent raster data, which are print information or bit image information written in a PDL ..."; With respect to the claimed limitation of "the printing preparation of the recording sheet for the image data is performed in the order in which the first completion time or the second completion time is earlier", Applicant admitted on Pg. 1-2 of Specification, two conventional methods, one being "... a method in which when the image data is transferred from each image data outputting apparatus, printing preparation of a recording sheet such as a film and a recording paper for printing the image data is started upon completion of the transfer of the image data", in another words, printing preparation of a recording sheet is started after completion of the transfer of the image data; also see Para. 3 of instant Specification, "... that the start of the printing is delayed by the recording sheet being prepared", in another words, the completion time of transfer of image data is earlier than completion of printing preparation of the recording sheet time).

Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A. Toyofuku (U.S. Pub. No. 2001/0022660, **Fujifilm Corp.**) disclose a method of conveying recording material and device for controlling conveying of recording material.

30. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

31. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacky X. Zheng whose telephone number is (571) 270-1122. The examiner can *normally* be reached on Monday-Friday, 7:30 a.m.-5p.m., Alt. Friday Off.

33. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler M. Lamb can be reached on (571) 272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

34. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jacky X. Zheng/

Examiner, Art Unit: 2625
July 22, 2008

/Twyler L. Haskins/

Supervisory Patent Examiner, Art Unit 2625